

WHAT IS CLAIMED:

1. An isolated hSARS virus having China Center for Type Culture Collection Deposit Accession No. CCTCC-V200303.
2. An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a nucleotide sequence that hybridizes to SEQ ID NO:1 under stringent condition.
3. An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a nucleotide suqeunce that hybridizes to SEQ ID NO:11 under stringent condition.
4. An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a nucleotide sequence that hybridizes to SEQ ID NO:13 under stringent condition.
5. The hSAARS virus of any one of claims 1-4 which is killed.
6. The hSARS virus of any one of claims 1-4 which is attenuated.
7. The attenuated hSARS virus of claim 6 whose infectivity is reduced.
8. The attenuated hSARS virus of claim 7 whose infectivity is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold , 500-fold, or 10,000-fold.
9. The attenuated hSARS virus of claim 6 whose replication ability is reduced.
10. The attenuated hSARS virus of claim 9 whose replication ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.
11. The attenuated hSARS virus of claim 6 whose protein synthesis ability is reduced.
12. The attenuated hSARS virus of claim 11 whose protein synthesis ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

13. The attenuated hSARS virus of claim 6 whose assembling ability is reduced.
14. The attenuated hSARS virus of claim 13 whose assembling ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.
15. The attenuated hSARS virus of claim 6 whose cytopathic effect is reduced.
16. The attenuated hSARS virus of claim 15 whose cytopathic effect is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.
17. An isolated nucleic acid molecule comprising a nucleotide sequence encoding the hSARS virus of any one of claims 1-4 or a complement thereof.
18. An isolated nucleic acid molecule which hybridizes under stringent conditions to the nucleic acid molecule of claim 17 or a complement thereof.
19. An isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof.
20. An isolated nucleic acid molecule comprising a nucleotide sequence having at least 100, 150, 200, 250, 300, 350, 400, 450, 500, 550 or 600 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.
21. An isolated nucleic acid molecule comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO:2 or a complement of said nucleotide sequence.
22. An isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof.
23. An isolated nucleic acid molecule comprising a nucleotide sequence having at least 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1050, 1,100, 1,150 or 1,200 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

24. An isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof.
25. An isolated nucleic acid molecule comprising a nucleotide sequence having at least 5, 500, 550, 600, 650 or 700 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.
26. An isolated nucleic acid molecule which hybridizes under stringent conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:1, 11, or 13, or a complement thereof, wherein the nucleic acid molecule encodes an amino acid sequence which has a biological activity exhibited by a polypeptide encoded by the nucleotide sequence of SEQ ID NO:1, 11 or 13.
27. The nucleic acid molecule of claim 17, wherein the molecule is RNA.
28. The nucleic acid molecule of claim 18, wherein the molecule is RNA.
29. The nucleic acid molecule of any one of claim 19-26, wherein the molecule is RNA.
30. The nucleic acid molecule of claim 17, wherein the molecule is DNA.
31. The nucleic acid molecule of claim 18, wherein the molecule is DNA.
32. The nucleic acid molecule of any one of claims 19-26, wherein the molecule is DNA.
33. An isolated polypeptide encoded by the nucleic acid molecule of claim 17.
34. An isolated polypeptide encoded by the nucleic acid molecule of claim 18.
35. An isolated polypeptide encoded by the nucleic acid molecule of any one of claims 19-26.
36. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:2.
37. An isolated polypeptide comprising the amino acid sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150 or 200 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2.

38. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:12.
39. An isolated polypeptide comprising an amino acid sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350 or 400 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:12.
40. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:14.
41. An isolated polypeptide comprising an amino acid sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150 or 200 contiguous amino acid residues of the amino acid sequence of SEQ IDNO:14.
42. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the hSARS virus of Deposit Accession No: CCTCC-V200303.
43. The isolated antibody of claim 42 or an antigen-binding fragment thereof which neutralizes an hSARS virus.
44. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the hSARS virus of any one of claims 2-4.
45. The isolated antibody of claim 44 or an antigen-binding fragment thereof which neutralizes an hSARS virus.
46. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the polypeptide of claim 33.
47. The isolated antibody of claim 46 or an antigen-binding fragment thereof which neutralizes an hSARS virus.
48. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the polypeptide of claim 34.
49. The isolated antibody of claim 48 or an antigen-binding fragment thereof which neutralizes an hSARS virus.

50. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the polypeptide of claim 35.
51. The isolated antibody of claim 50 or an antigen-binding fragment thereof which neutralizes an hSARS virus.
52. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the polypeptide of any one of claims 36-41.
53. The isolated antibody of claim 52 or an antigen-binding fragment thereof which neutralizes an hSARS virus.
54. A method for detecting the presence of the hSARS virus of any one of claims 1-4 in a biological sample, said method comprising:
- (a) contacting the sample with a compound that selectively binds to said hSARS virus; and
 - (b) detecting whether the compound binds to said hSARS virus in the sample.
55. The method of claim 54, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.
56. The method of claim 54, wherein the compound that binds to said virus is an antibody.
57. The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof.
58. The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550 or 600 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

59. The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof.

60. The method claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150 or 1,200 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

61. The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof.

62. The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650 or 700 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

63. A method for detecting the presence of the polypeptide of claim 33 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said polypeptide; and
- (b) detecting whether the compound binds to said polypeptide in the sample.

64. The method of claim 63, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

65. The method of claim 63, wherein the compound that binds to said polypeptide is an antibody or an antigen-binding fragment thereof.

66. A method for detecting the presence of the polypeptide of claim 34 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said polypeptide; and
- (b) detecting whether the compound binds to said polypeptide in the sample.

67. The method of claim 66, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

68. The method of claim 66, wherein the compound that binds to said polypeptide is an antibody or an antigen-binding fragment thereof.

69. A method for detecting the presence of polypeptide of claim 35 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said polypeptide; and
- (b) detecting whether the compound binds to said polypeptide in the sample.

70. The method of claim 69, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

71. The method of claim 69, wherein the compound that binds to said polypeptide is an antibody or an antigen-binding fragment thereof.

72. A method for detecting the presence of the polypeptide of claims 36-41 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said polypeptide; and
- (b) detecting whether the compound binds to said polypeptide in the sample.

73. The method of claim 72, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

74. The method of claim 72, wherein the compound that binds to said polypeptide is an antibody or an antigen-binding fragment thereof.

75. A method for detecting the presence of a first nucleic acid molecule derived from the hSARS virus of claim 1 in a biological sample, said method comprising:

- (a) Contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and
- (b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

76. The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof.

77. The method of claim 75, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550 or 600 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

78. The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof.

79. The method of claim 75, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150 or 1,200 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

80. The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof.

81. The method of claim 75, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650 or 700 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

82. A method for detecting the presence of a first nucleic acid molecule derived from the hSARS virus of claim 2-4 in a biological sample, said method comprising:

- (a) Contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and
- (b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

83. The method of claim 82, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof.

84. The method of claim 82, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550 or 600 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

85. The method of claim 82, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof.

86. The method of claim 82, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150 or 1,200 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

87. The method of claim 82, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof.
88. The method of claim 82, wherein the second nucleic acid molecule comprises at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650 or 700 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.
89. A host cell infected with the hSARS virus of Deposit Accession No. CCTCC-V200303.
90. The host cell of claim 89 which is a primate cell.
91. The host cell of claim 90 which is a FRhK-4 fetal rhesus monkey kidney cell.
92. A host cell infected with the hSARS virus of any one of claims 2-4.
93. The host cell of claim 92 which is a primate cell.
94. The host cell of claim 93 which is a FRhK-4 fetal rhesus monkey kidney cell.
95. A method of detecting a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:
- (a) contacting the biological sample with the host cell of claim 89; and
 - (b) detecting the antibody bound to the cell.
96. A method of detecting a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:
- (a) contacting the biological sample with the host cell of claim 92; and
 - (b) detecting the antibody bound to the cell.
97. An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

98. An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.
99. An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of claim 5 or a subunit thereof, and a pharmaceutically acceptable carrier.
100. An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.
101. An immunogenic formulation comprising an immunogenically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof, and a pharmaceutically acceptable carrier.
102. An immunogenic formulation comprising an immunogenically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof, and a pharmaceutically acceptable carrier.
103. An immunogenic formulation comprising an immunogenically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof, and a pharmaceutically acceptable carrier.
104. An immunogenic formulation comprising an immunogenically effective amount of the polypeptide of claim 33.
105. An immunogenic formulation comprising an immunogenically effective amount of the polypeptide of claim 34.
106. An immunogenic formulation comprising an immunogenically effective amount of polypeptide of claim 35.
107. An immunogenic formulation comprising an immunogenically effective amount of the polypeptide of claim 36-41.

108. A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

109. A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.

110. A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 5 or a subunit thereof, and a pharmaceutically acceptable carrier.

111. A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.

112. A vaccine formulation comprising an therapeutically or prophylactically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a complement thereof; and a pharmaceutically acceptable carrier.

113. A vaccine formulation comprising an therapeutically or prophylactically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or a complement thereof, and a pharmaceutically acceptable carrier.

114. A vaccine formulation comprising an therapeutically or prophylactically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or a complement thereof, and a pharmaceutically acceptable carrier.

115. A pharmaceutical composition comprising a prophylactically or therapeutically effective amount of an anti-hSARS agent and a pharmaceutically acceptable carrier.

116. The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is an antibody or an antigen-binding fragment thereof which immunospecifically binds to the hSARS virus of Deposit Accession No. CCTCC-V200303, or polypeptides or protein derived therefrom.

117. The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, or a fragment thereof.
118. The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or 13, or a fragment thereof.
119. The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is a polypeptide encoded by a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or a fragment thereof having a biological activity of said polypeptide.
120. The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is a polypeptide encoded by a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11 or 13, or a fragment thereof having a biological activity of said polypeptide.
121. A kit comprising a container containing the immunogenic formulation of claim 97.
122. A kit comprising a container containing the immunogenic formulation of claim 98.
123. A kit comprising a container containing the immunogenic formulation of claim 99.
124. A kit comprising a container containing the immunogenic formulation of claim 100.
125. A kit comprising a container containing the immunogenic formulation of any one of claims 101-103.
126. A kit comprising a container containing the immunogenic formulation of claim 104.
127. A kit comprising a container containing the immunogenic formulation of claim 105.
128. A kit comprising a container containing the immunogenic formulation of claim 106.
129. A kit comprising a container containing the immunogenic formulation of claim 107.
130. A kit comprising a container containing the vaccine formulation of claim 108.
131. A kit comprising a container containing the vaccine formulation of claim 109.

132. A kit comprising a container containing the vaccine formulation of claim 110.
133. A kit comprising a container containing the vaccine formulation of claim 111.
134. A kit comprising a container containing the vaccine formulation of any one of claims 112-114.
135. A kit comprising a container containing the pharmaceutical composition of claim 115.
136. A method for identifying a subject infected with the hSARS virus of claim 1, comprising:
- (a) obtaining total RNA from a biological sample obtained from the subject
 - (b) reverse transcribing the total RNA to obtain cDNA; and
 - (c) amplifying the cDNA using a set of primers derived from a nucleotide sequence of the hSARS virus.
137. The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of the genome of the hSARS virus of Deposit Accession No. CCTCC-V200303.
138. The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:1, 11 or 13, or a complement thereof.
139. The method of claim 136, wherein the set of primers have the nucleotide sequence of SEQ ID NOS:3 and 4, respectively.
140. A method for identifying a subject infected with the hSARS virus of any one of claims 2-4, comprising:
- (a) obtaining total RNA from a biological sample obtained from the subject
 - (b) reverse transcribing the total RNA to obtain cDNA; and
 - (c) amplifying the cDNA using a set of primers derived from a nucleotide sequence of the hSARS virus.

141. The method of claim 140, wherein the set of primers are derived from the nucleotide sequence of the genome of the hSARS virus of Deposit Accession No. CCTCC-V200303.
142. The method of claim 140, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:1, 11 or 13, or a complement thereof.
143. The method of claim 140, wherein the set of primers have the nucleotide sequence of SEQ ID NOS:3 and 4, respectively.
144. An isolated hSARS virus having the nucleotide sequence of SEQ ID NO:15 or a nucleotide sequence that hybridizes to SEQ ID NO:15 under stringent condition.
145. An isolated nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO: 15 or a complement thereof.
146. An isolated nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof
147. An isolated nucleic acid molecule comprising a nucleotide sequence which hybridizes under stringent conditions to the nucleic acid molecule of SEQ ID NO:15 or a complement thereof.
148. An isolated polypeptide encoded by the nucleic acid molecule of claim 145 or a fragment of said nucleic acid molecule.
149. An isolated antibody or an antigen-binding fragment thereof which immunospecifically binds to the polypeptide of claim 148.
150. The isolated antibody of claim 149 or an antigen-binding fragment thereof which neutralizes an hSARS virus.

151. A method for detecting the presence of the hSARS virus of claim 144 in a biological sample, said method comprising:

- (a) contacting the sample with a compound that selectively binds to said hSARS virus; and
- (b) detecting whether the compound binds to said hSARS virus in the sample.

152. The method of claim 151, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

153. The method of claim 151, wherein the compound that binds to said virus is an antibody.

154. The method of claim 151, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, 11 or 13, or a complement thereof.

155. A method for detecting the presence of the polypeptide of claim 148 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said polypeptide; and
- (b) detecting whether the compound binds to said polypeptide in the sample.

156. The method of claim 155, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

157. The method of claim 155, wherein the compound that binds to said polypeptide is an antibody or an antigen-binding fragment thereof.

158. A method for detecting the presence of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:15 or a fragment thereof in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said nucleic acid molecule; and
- (b) detecting whether the compound binds to said nucleic acid molecule in the sample.

159. The method of claim 158, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

160. A host cell infected with the hSARS virus of claim 144.

161. A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is killed.

162. A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is attenuated.

163. A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier.

164. A vaccine formulation comprising a therapeutically or prophylactically effective amount of the polypeptide of claim 148, and a pharmaceutically acceptable carrier.

165. A vaccine formulation comprising a therapeutically or prophylactically effective amount of a nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO:15, a complement thereof or a fragment thereof, and a pharmaceutically acceptable carrier.

166. A method for identifying a subject infected with the hSARS virus of claim 144, comprising:

- (a) obtaining total RNA from a biological sample obtained from the subject
- (b) reverse transcribing the total RNA to obtain cDNA; and

- (c) amplifying the cDNA using a set of primers derived from a nucleotide sequence of the hSARS virus.

167. The method of claim 136 or 166, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:15, or a complement thereof.